

Abstract of the Disclosure

Burst and spike characteristics in an excimer laser output in a burst operation are efficiently improved. Xenon gas is added from a compact Xe gas cylinder to gases for excimer laser in a chamber supplied from an Ar/Ne gas cylinder and an Ar/F₂/Ne gas cylinder, a ratio of the xenon gas is detected by an Xe gas sensor, and the supply of the xenon gas from the Xe gas cylinder to the chamber is controlled by a gas controller.